CONTENTS

PAGE

Modern Crude Oil Loading Techniques at Mina-al-Ahmadi, Kuwait. J. M. Dougary 1

Faulting and Oil Accumulation. G. D. Hobson 23

New Methods for the Measurement of Oil Quantities. O. Falk 27

Application of Cost Accounting to Oil Operations. C. J. Taylor 33

Tentative Standard Method for the Assessment of the Rust Preventing Characteristics of Hard Film and Soft Film Temporary Corrosion Preventives. The Protectives Panel of IP Standardization Committee No. 6 50

Alkyltetralins

Part I. The Four Ethyltetralins. C. M. Staveley and J. C. Smith 55

Temperature Dependence of the Viscosity of Liquids, especially Lubricating Oils. Introduction of the Fundamental Viscosity Temperature Index F.V.T.I. J. Cornelissen and H. I. Waterman . . 62

A Qualitative Test for TEL in Gasoline. Geo. E. Mapstone 67

Pre-flame Reactions in Diesel Engines. Part III. F. H. Garner, O.B.E., G. H. Grigg, Frank Morton, and W. D. Reid 69

The Vapour Pressure of Alcohol–Gasoline Blends. Geo. E. Mapstone 95

Alkyltetralins

Part II. The 2- and 6-Methyl-, -*n*-Propyl and -*n*-Butyltetralins. A. S. Bailey and C. M. Staveley . 97

Statistics as an Aid to Specification. G. W. Sears 105

An Alternative Approach to the Design of 1-2 Heat Exchangers. E. T. Nelson 124

Obituary : **Alexander Frank Dabell** 127

Correspondence : **Modern Crude Oil Loading Techniques at Mina-al-Ahmadi, Kuwait** 128

Petroleum Fuels for Domestic Heating and Lighting. D. G. Tompkins and G. F. J. Murray . . 129

Efficiency of Packed Columns for Extractive Distillation. F. H. Garner, O.B.E., S. R. M. Ellis, and W. H. Granville 148

Amendments to IP Standard Methods 154

Correspondence : **"Extrapolated" Methods of Rating Oils by Engine Tests** 155

Faulting and Oil Accumulation 157

Temperature Dependence of the Viscosity of Liquids 157

Obituary : **Stanley Herbert Chapman** 158

A Legal Department in an Oil Company. F. U. J. O'Brien 159

Acid Treatment of Shale Gasoline

Part III. Effects of some Treatment Conditions. Geo. E. Mapstone and J. A. Grosberg . . . 168

Part IV. Treatment with an Acid Resin. Geo. E. Mapstone and (Mrs) O. P. Van Es . . . 171

The Institute of Petroleum

Annual Report 173

Forty-third Annual General Meeting 183

Refinery Utility Installations. J. A. Shaw 187

Platforming of Paraffin Wax. P. Schenk, A. B. H. Vervoorn, H. I. Waterman, and A. B. R. Weber . 205

The Oil Industry—its Place in the World and its Future. J. W. Platt 217

A Study of the Errors Involved in Extraction Calculations due to the Application of Ternary Diagrams to Multi-Component Systems. L. Alders 228

CONTENTS

PAGE

Correspondence : **Temperature Dependence of the Viscosity of Liquids** 232

The Stratigraphy of the "Main Limestone" of the Kirkuk, Bai Hassan, and Qarah Chauq Dagh Structures in North Iraq. R. C. Van Bellen 233

Recent Oil Development in France. P. S. Hirtz 265

Solution Gas Drive. M. A. Kirkby and J. Birks 282

Demerit System for Rating the Performance of Lubricating Oils and Fuels in Reciprocating Internal Combustion Engines. R. Tourret and R. W. Bale 292

Effect of Using Silicones in the Laboratory Test for Recovering Bitumens and in the Distillation Test for Cutback Bitumens. E. H. Green 298

Symposium on Lubrication

The Friction and Lubrication of Solid Surfaces. F. P. Bowden, F.R.S., and J. W. Menter . . 301

Hydrodynamic Lubrication and its Application to Bearing Design. F. T. Barwell 304

The Frictional Properties of Molybdenum Disulphide. J. W. Midgley 316

Solid Lubricants. E. A. Smith 322

Some Lubrication Problems of Aviation Gas Turbines. V. W. David, J. R. Hughes, and D. Reece . 330

Lubricant Additives and their Action. C. V. Smalheer and T. W. Mastin 337

Obituary : **Oliver Thornycroft, C.B., O.B.E.** 348

Selective Analytical Hydrogenation of Olefinic Distillates. H. I. Waterman, A. B. R. Weber, and C. Zweekhorst 349

The Determination of Oxygen-containing Functional Groups in Blown Asphaltic Bitumens and Similar Substances. J. Knotnerus 355

Studies in Shale Oil

Part VIII. Fluxing the Blown Bitumen. Geo. E. Mapstone and H. Karius 361

Author Index 371

Name Index 373

Subject Index 375